MEETING SUMMARY

CALIFORNIA WATER PLAN UPDATE 2013
SEDIMENT MANAGEMENT RMS WORKSHOP
12:30 – 3:30 P.M.
815 S STREET, SACRAMENTO, CA

Meeting Objectives

1. Review the second draft of the Sediment Management Resource Management Strategy (RMS)
2. Obtain feedback on suggested edits.

Welcome, Introductions and Agenda Review

A workshop was held on November, 2012 to discuss the current draft of the Sediment Management RMS. Lisa Beutler, Executive Facilitator, reviewed the agenda for the workshop and introductions were made around the room and on the phone.

Overview

Lisa Beutler commented that an incredible range of input has been received for this RMS. The chapter has been rearranged for better flow. Definitions have been cleaned up and much of the technical details have been deleted. While material was pulled from multiple sources, the goal is to establish a consistent tone and one voice.

Document Walk Through

As noted, most of the revisions from the original working draft are related to chapter organization. The objective for this workshop was to identify any final red flag efforts and focus on the recommendations. A new section of introductory text has been added, providing a definition and discussion of the different aspects of sediment. Distinctions are made between sediment, debris and trash – the chapter does not address trash.

General Comments

- There is a hypothesis that the intensity and frequency of wildfire is also linked to climate change. These wildfires accelerate siltation of reservoirs and create an additional strain on resources.

Introduction

- Page 1, last paragraph: Add discussion on large woody debris – “Large woody material is key to sorting material and creating scours and pools. Pools provide a important habitat for juvenile fish, as well as refugia during flood events. Large woody debris also creates turbulences which clean spawning gravels.

Sediment Management in California

- Page 2, line 9: "… desirable in some quantities and locations and unwanted in others."
- Page 3, restructure first section as follows:
  - Page 3, line 1: Add new first bullet, "Direct effects on aquatic life."
  - Page 3, second bullet should be: "Toxic pollutants from stormwater may also be adsorbed onto sediments. Concentrated pollutants can greatly impair water quality if theya re remobilized back into the environment."
  - Page 3, third bullet is: "Contaminates in sediments can bioaccumulate or magnify in the food chain and cause problems for aquatic plants, animals and humans. These pollutants can impair water bodies."
  - Page 3, fourth bullet is: "Nutrients (such as nitrates, phosphorous, potassium) and toxim pollutants (contaminants such as trace metals and pesticides), when resent, are associated with fine-grained sediment. In some cases suspended sediment particles increase growth of bacteria, which can concentrate these nutrients.
- Page 3, line 23: Littoral cells are not sediment.

Management Framework

- Page 3, line 30: "The California Water Boards provide regulatory oversight for transport of course-grained sediment to the coast and [deleted text] management of excessive watershed sediments.
- Page 3, line 40: After San Francisco Bay Water Board, add "State Lands Commission," and San Francisco BCDC…
- There is a quasi-LTMS process in the Delta.

Sediment Management and Flood Management

- Page 4, lines 34-35. Say, "When a river overtops its banks and flood, it leaves behind deposits of sediment."
- Page 4, lines 34-35: It should be stated more generally that sediment is more than erosion. Overtopping can result in depositions in the channel or in the floodplain which affect flood management. These depositions can reduce flood capacity. Rivers can also erode their banks and potentially erode levees or flood control structure.
- Page 4, lines 34-35: Sediment-starved channels can increase velocity, which can increase flooding.

Historic Context

- Page 5, line 31: "Ditches used for mining are still in use for agriculture and public water supply today."
- Page 6, line 2: "Landslides resulting from natural and human processes are a major producer of sediment." (Delete remainder of sentence.)
- Page 6, line 10: Replace the word "urbanization" with "residences and businesses"

- Page 6, line 12: For example, Los Angeles (LA) County is one of the many locations where sediment is the result of…"
- Page 6, lines 22-26, restructure as follows: "…for use and recharge. Farms and subdivisions have been located in naturally occurring sediment disposal areas, unaware that they are sitting on still-active alluvial fans. This situation led to the construction of dams, debris basins, channels and spreading grounds in LA County, to serve agricultural and urban areas. Most of the agricultural areas later became urbanized."

Management Approach

- Page 7, lines 3-4: This is generally extreme weather.
- Pages 7-10: Agencies and Organization Involved in Source Sediment Management
  - This should also discuss private landowners, facility owners and private interests.
  - Federal:
    - List USDA, then indent USFS and NRCS underneath that
    - List Dept. of Interior, with BLM, USGS and NPS under that
    - Add NOAA (coastal restoration)
    - Add USACE (dams, sediment management)
    - Add USEPA (managing and regulating dredged sediments)
  - State (land managers box):
    - Add State Parks
    - Add State Lands Commission
  - State (regulators, training, technical assistance box)
    - Add DFG
  - Local:
    - Add new box for "Water Agencies/Districts, Reclamation Districts"
    - In activity section, add that local governments may also be involved in flood protection and water supply.
    - For RCDs, in "role" section – add "planning, technical and financial assistance"
- Page 11, Sediment Deposition Management: Dam retrofit is an option for deposition management; it's about the system of management.
- Page 11, line 29: Add new fourth bullet, "Excessive sediment deposition can also fill pools and embed riffles, reducing stream habitat."
- Page 13, Dam Removal:
  - Many dams in California need to remain to serve flood control functions. Consider adding language: "Dams are an important part of California's water management and will remain so into the foreseeable future." (This would be the first sentence.)
  - Add a new section on Dams, discuss reservoir sediment management: sluicing of sediment, dredging, dam removal. Discuss dam redesign, retrofit and removal.
  - NHI is looking at methods for passage of sediment through dams.
- Page 14, line 8: "Includes the entire watershed, from the headwaters to the sea."
- Page 14, line 9: Add "estuaries" after "bays"

Connections to Other Resource Management Strategies

- Is there a rationale for the sequence in which the RMSs are listed?
- Change "Water-dependent Cultural Resource Management" to "Water and Culture RMS"
- Include Recycled Water RMS

ACTION ITEM: Send LA the chapter on stormwater (urban) runoff.

Beneficial Uses for Extracted Sediment

- Page 17: The applicability of uses is subject to the demand for materials. (This might be an issue or barrier – matching disposal to uses.)

System Capacity and Materials Use

- Page 18, line 22: "…is not removed or passed through, storage capacity for water or hydropower is reduced."
- Page 18, line 26: "…management, ~~and~~ water supply, or hydropower is diminished."

Potential Costs of Sediment Management

- Page 18: Include LTMS information on investments.

Major Issues Facing Sediment Management

- Page 18: Add to bullets underneath urbanization bullet.
  - Supply/demand regarding extracted sediment in terms of quantity and timing, sediment type, and use
  - Sustainability
- Page 19: Change bullet on "nimbyism" to discuss in terms of transfer of impacts and concerns with siting

Sediment Source Management

- Page 19, line 26: …"stopped by dams, extracted for use, .
  - Instream sand and gravel mining removes a resource that downstream environments need. Operations should be moved out of the stream, or a mitigation fee imposed.
- Page 19, Barriers to Supplying Course-Grained Sediments to Coastal Beaches
  - Current Corps policy for placement of dredge materials is lowest-cost alternative (not where it could best be used) – may also fit on page 20, first section on cost allocation.
  - Sediments can also be used to restore the template of flood protection

Sediment Transport Management

- Page 21, line 1: This requires introductory language saying this is an emerging discipline.
- Page 21, lines 10-20: This should speak instead to instream Sediment Quality Objectives to prevent aquatic organisms from being smothered by sediment.
- Page 21, new element: Altered channels have changed natural hydro-geomorphology and natural sediment processes.

Sediment Deposition Management

- Page 22, line 6-10, Reuse Challenges
  - Include distance and cost factors
- Page 22, line 11: "Nonaligned Regulatory Requirements"
- Page 22, line 22: "Lack of Data Availability"

Sediment and Climate Change

- Page 22, line36: Coupled with sea level rise and surge…"
- Drought and climate changes change alter permeability and other physical characteristics of sediment. Increased carbon dioxide levels may influence soil chemistry.
- Page 23, Adaptation: Make sure that the focus is on recommendations (rather than tools). Is it sediment adaptation – sediment as a tool for adapting to sea level rise.
  - Consider text boxes or Volume 1 to discuss tools
    - Managed retreat is discussed a lot to manage beach width (is and adaptation to climate change).
    - The Coastal Commission is funding pilot projects for "growing" wetlands to protect against surge.

Recommendations

- There is no recommendation for adaptation.
- For each recommendation clarify **who** the recommendation is target to:
  - Page 23, line 25: ~~The~~ State government...
  - Page 24, line 17: Ditto
  - Page 24, line 25: Ditto
  - Page 24, line 35: Ditto
  - Page 25, line 4: Ditto
  - Page 25, line 17: Ditto
  - Page 25, line 25: Ditto
  - Page 25, line 28: Ditto
  - Page 25, line 32: Ditto
  - Page 26, line 12, Ditto
- Page 23, lines 29-31: Strike last sentence – it is never discussed in text.
- Page 23, line 32-33: Bullet #2 should become a sub-bullet under existing Bullet #3

- Page 23, line 39-41 to top of page 24: REFRAME – This is a comment on recommendations. E.g. This should be considered for each recommendations.
- Page 24, lines 17-23 (bullet #4): Check to see if text box describes this.
- Page 24, lines 32-34: This sentence should move to the sediment source management section; say "sediment water quality requirements" instead of sediment TMDL. Replace this sentence with one that says: "The work will need to account for compliance with TMDLs and other interests such as fishing and recreation." (Sediment bypasses may conflict with TMDLs and instream recreation interests.)
- Page 24, Sediment Transport Management: Call out remote sensing as a tool for sediment management.
- Page 25, bullet #1: This type of monitoring may not be feasible in some watersheds (e.g. undeveloped, highly erosive mountain areas.
- Page 25, line 17: The State Lands Commission and DWR should prepare sand budgets (lower-case).
- Page 25, line 28-34: Should these two recommendations move to the Finance Plan? Is there the ability to pass such a measure?
- Page 25, lines 35-39: Is there anything else to offer local government? Evaluation considerations for existing grants? Can the State enable special districts to do projects for beneficial uses of sediment? (E.g. Can tax credits for using sediment beneficially be extended to flood districts?) The State should enable special districts and local government to levy taxes for sediment management, in the way that infrastructure districts do.
- Page 26, line 1: The word "inappropriately" is value-laden.
- Page 26, lines 3 and 8: What does the word "support" mean? Is it technical, financial, capacity support?
- Page 26, lines 12-14: Add that "Stakeholders should be convened to establish data requirements. (E.g. What type of data needs to be acquired?)
- Page 26, line 12: Suggest Sediment Data ~~Base~~ Exchange

Attendance

In person:

Becky Challender, NRCS
Bruce Gwynne, Department of Conservation
John Kingsbury, Mountain Counties Water Resources Association
George Nichol, retired (Water Boards, USACE)
Betty Yee, Central Valley Water Board

Kamyar Guivetchi, DWR
Hoa Ly, DWR
Elizabeth Patterson, DWR

Via webinar:

Marcela Benavides, LA County Department of Public Works
Clif Davenport, Department of Conservation
Sidney Davis, Natural Resources Conservation Service
Blair Greimann, US Bureau of Reclamation
Edward Hard, California Department of Food and Agriculture
John Ricker, County of Santa Cruz
Bob Siegfried, Carmel Area Wastewater District
Pat Wood, LA County Department of Public Works

Jose Alarcon, DWR
Jennifer Morales, DWR

Facilitation: Lisa Beutler, MWH, Executive Facilitator; Judie Talbot, CCP, Facilitation Support